

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A sandwich ~~Sandwich~~ assay method for detecting a presence ~~the presence~~ of a target molecule in a sample comprising a complex biological fluid, which assay comprises:

providing a first affinity ligand with affinity for the target molecule, which affinity ligand is capable of being immobilized to a solid support;

applying a sample ~~the sample~~ in such a way that binding of a target molecule, if present in the sample, to the first affinity ligand is enabled;

applying a second affinity ligand with affinity for the target molecule, the application enabling binding of the second affinity ligand to the target molecule;

removing second affinity ligand not bound to target molecule; and

detecting a presence ~~the presence~~ of the second affinity ligand, such presence being an indicator of the presence of a target molecule in the sample;

the first affinity ligand being immobilized to the solid support at any stage before said detection,

wherein at least one of the first and second affinity ligands is a naturally occurring bacterial receptor, a domain thereof, or an engineered protein, and further wherein in which

~~method~~ at least one of the first and second affinity ligands is an affinity ligand other than an antibody.

2. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 1, in which the first affinity ligand is provided immobilized to the solid support.

3. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 1, in which the first affinity ligand is immobilized to the solid support during performance of the method.

4. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 2, in which the solid support is selected from microtiter plates; compact discs comprising microfluidic channels; protein array chips; membranes; microparticles; pin structures; stick structures; sensor surfaces; or cell surfaces ~~and cell surfaces~~.

5. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 4, in which the solid support is a microtiter plate.

6. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 1, which further comprises removing target molecules not bound to the first affinity ligand.

7. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 1, in which the second affinity ligand is an affinity ligand other than an antibody.

8. (Currently Amended) The sandwich ~~Sandwich~~ assay method according claim 1, in which the first affinity ligand is an affinity ligand other than an antibody.

9. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 1, in which both the first and the second affinity ligand is an affinity ligand other than an antibody.

10. (Canceled)

11. (Canceled)

12. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 1 ~~claim 11~~, in which the naturally occurring bacterial receptin ~~reception~~, or domain thereof, is chosen from staphylococcal protein A, streptococcal protein G or ~~and~~ *Peptostreptococcus magnus* protein L, ~~and domains thereof~~.

13. (Canceled)

14. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 1, in which at least one of the first and second affinity ligands is an engineered protein, constructed by using as scaffold a protein domain selected from domains of bacterial receptins; fibronectins; protease inhibitors; retinol binding proteins; bilin binding proteins; amylase inhibitors; CTLA-4; cytochromes; or cellulose binding proteins ~~and cellulose binding proteins~~.

15. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 14, in which the scaffold is selected from bacterial receptor domains.

16. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 15, in which the scaffold is selected from ~~the~~ immunoglobulin binding domains of staphylococcal protein A.

17. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 16, in which the scaffold is a ~~is the~~ B domain of staphylococcal protein A.

18. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 16, in which the scaffold is a ~~is the~~ Z domain derived from the B domain of staphylococcal protein A.

19. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 14, in which the scaffold is selected from ~~the~~ immunoglobulin binding domains of *Peptostreptococcus magnus* protein L.

20. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 14, in which the scaffold is selected from ~~the~~ immunoglobulin binding domains of streptococcal protein G.

21. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 14, in which the scaffold is selected from ~~the~~ albumin binding domains of streptococcal protein G.

22. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 14, in which the engineered protein used as affinity ligand is selected from a library of variants of the scaffold used.

23. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 22, in which the library is a combinatorial library.

24. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 22, in which the library is constructed using phage display technology.

25. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 1, in which at least one of the first and second affinity ligands is derived from a library of linear peptides.

26. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 1, in which at least one of the first and second affinity ligands is derived from a library of cyclic peptides.

Claims 27 - 31 (Canceled).

32. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 1, in which the complex biological fluid is selected from serum, plasma, saliva, whole blood, plasma from plasmapheresis, cerebrospinal fluid, amniotic fluid, urine, semen, cord blood, supernatants from cell culture, cell culture media, exsudate or aspirate ~~and aspirate~~.

33. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 1, in which the sample is a human sample.

34. (Currently Amended) The sandwich ~~Sandwich~~ assay method according to claim 33, in which the sample is a human serum sample.

35. (Currently Amended) A kit for use in a sandwich assay method, the kit comprising: ~~Kit for use in a method according to any one of the preceding claims, which kit comprises:~~

a first affinity ligand with affinity for a target ~~the target~~ molecule and capable of being immobilized to a solid support;

a second affinity ligand with affinity for the target molecule, a presence ~~the presence~~ of which ligand is detectable; and

a solid support to which the first affinity ligand is capable of being immobilized,

wherein at least one of the first and second affinity ligands is a naturally occurring bacterial receptor, a domain thereof, or an engineered protein and further wherein ~~in which~~

~~kit~~ at least one of the first and second affinity ligands is an affinity ligand other than an antibody.

36. (Currently Amended) The kit according to claim 35,
wherein ~~Kit according to claim 35, in which kit~~ the solid support is selected from the group consisting of microtiter plates; compact discs comprising microfluidic channels; protein array chips; membranes; microparticles; pin structures; stick structures; sensor surfaces; and cell surfaces.

37. (Canceled)

38. (Canceled)

39. (Canceled)

40. (Canceled)

41. (New) The sandwich assay method according to claim 3, in which the solid support is selected from microtiter plates; compact discs comprising microfluidic channels; protein array chips; membranes; microparticles; pin structures; stick structures; sensor surfaces; or cell surfaces.

42. (New) The sandwich assay method according to claim 41, in which the solid support is a microtiter plate.